

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, in the application:

Listing of Claims:

1. (currently amended) A method comprising:
providing, in an optical network, an optical cross-connect system (OXC)
having a working port and a spare port;
providing a router having a working port to transmit or receive high priority data to or from the working port of the OXC and a protection port to transmit or receive low priority data to or from the spare port of the OXC;
detecting a failure in the router;
sending a signal from the router to the OXC, where the signal indicates the failure;
causing the working port of the OXC to connect to the protection port of the router in response to detection of the signal,
where the transmission of low priority data to or from the router is preempted by the transmission of the high priority data to or from the router, in response to the failure of the router; and
transmitting the high priority data from the router to the OXC via the protection port.
2. (previously presented) The method of claim 1, where the sending further comprises:

sending the signal, as an in-band signal, to the OXC.

3. (previously presented) The method of claim 2, where the sending an in-band signal to the OXC further comprises:

sending a Synchronous Optical Network (SONET) signal to the OXC.

4. (previously presented) The method of claim 1, where the sending further comprises:

sending the signal, as an out-of-band signal, to the OXC.

5. (previously presented) The method of claim 4, where the sending an out-of-band signal comprises:

addressing the out-of-band signal to an Internet Protocol address associated with the OXC.

6. (currently amended) A method comprising:

providing, in an optical network, an optical cross-connect system (OXC) having a working port and a spare port;

providing a router having a working port to transmit or receive high priority data to or from the working port of the OXC and a protection port to transmit or receive low priority data to or from the spare port of the OXC;

receiving a signal at the OXC from the router, the signal indicating a failure of a working port in the router;

connecting the protection port of the router to the working port of the OXC in response to receiving the signal where the transmission of low priority data to or from the router is preempted by the transmission of the high priority data to or from the router, in response to the failure of the router; and

transmitting the high priority data from the router to the OXC via the protection port.

7. (previously presented) The method of claim 6, where the receiving further comprises:

receiving an in-band signal, from the protection port of the router, at the OXC.

8. (previously presented) The method of claim 7, where the receiving an in-band signal at the OXC comprises:

receiving a Synchronous Optical Network (SONET) signal at the OXC.

9. (previously presented) The method of claim 6, where the receiving further comprises:

receiving an out-of-band signal at the OXC.

10. (previously presented) The method of claim 9, where the receiving an out-of-band signal further comprises:

addressing the out-of-band signal to an Internet Protocol address associated with the OXC.

11. (currently amended) An optical cross-connect system, located in an optical network, the optical cross-connect system comprising:

a spare port to transmit low priority data to or from a router that is external to the optical cross-connect system; and

a working port to transmit high priority data to or from a primary router that is external to the optical cross-connect system, where the working port is connected to the router in response to a failure of the primary router, and where the transmission of low priority data to or from the router is preempted by the transmission of the high priority data to or from the router, in response to the failure of the primary router.

12. (previously presented) The optical cross-connection system of claim 11, where the working port is connected to the router in response to receiving an in-band signal from the router.

13. (previously presented) The optical cross connection system of claim 12, where the working port is connected to the router in response to receiving a Synchronous Optical Network (SONET) signal from the router.

14. (previously presented) The optical cross-connection system of claim 11, where the working port is connected to the router in response to receiving an out-of-band signal from the router.

15. (currently amended) A communications network for transmitting data, the communications network comprising:

an optical cross-connect system (OXC) having a working port and a spare port, the OXC being located in an optical network; and

a router for receiving the data from a terminal, the router comprising:

a working port to transmit or receive high priority data to or from the working port of the OXC; and

~~a an input~~ protection port to transmit or receive low priority data to or from the ~~input~~ spare port of the OXC, where

upon detection of a failure of the working port of the router, the input protection port of the router connects to the working spare port of the OXC and the transmission of low priority data between the router and the OXC, via the ~~input~~ protection port and the spare port, is preempted by the transmission of high priority data.

16. (previously presented) The communications network of claim 15, where the router transmits a signal indicating the failure to the OXC, the signal causing the OXC to connect the input protection port directly to the working port of the OXC.

17. (previously presented) The communications network of claim 16,
where the signal is an in-band signal.

18. (previously presented) The communications network of claim 17,
where the in-band signal is a Synchronous Optical Network (SONET) signal.

19. (previously presented) The communications network of claim 16,
where the signal is an out-of-band signal.

20. (previously presented) The communications network of claim 19,
where the out-of-band signal is addressed to an Internet Protocol address
associated with the OXC.